NLX Bus Backplane Board PC-BP4/3(NLX) User's Guide

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Package Contents

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Specifications

- 8-Slot NLX Backplane 1 x NLX, 3 x PCI,1 x PCI/ISA,

1 x ISA, 1 x ISA(8bit, for ADPLNK(PC)(CONTEC Product))

- 6-Layes PCB With ATX and AT Power Connectors

- 5.LED Power indicators : +5V, -5V, +12,-12V and +3.3V

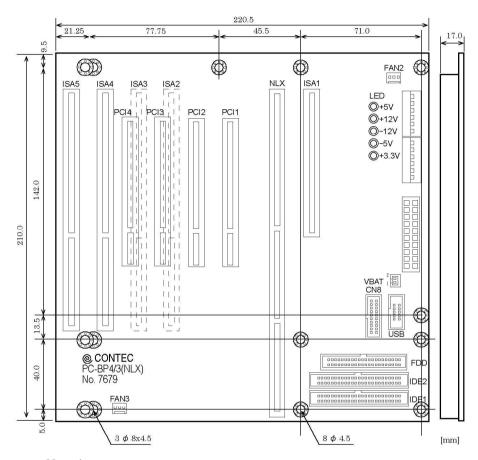
- 2 x FAN connectors - 2 x IDE port connector

- 1 x FDD port connector - 2 x USB port

- 1 x Front Panel Connector - 1 x External Battery connector

Item	Specification		
Number of slots	1 x NLX bus slot		
	3 x PCI bus slot		
	1 x PCI/ISA bus slot		
	1 x ISA bus slot		
	1 x ISA bus slot (for ADPLNK(PC))		
Operating conditions	0~50°C,10~85% (No condensation allowed)		
Storage conditions	0~70°C		
Major dimensions (mm)	220.50(L) x 210.0(W) x 17.0(H) (Board + Bus slot)		
Weight	370g		

Board Dimension



Notes!

- ISA2, 3 are not mount.
- ISA1 is for ADPLNK(PC) (CONTEC Products).
- ISA4, PCI4 are PCI/ISA shared.

Pin Assignment Connectors

Connector	Description
NLX	NLX BUS connector
PCI1, PCI2, PCI3, PCI4	32-bit PCI BUS connector
ISA1	8-bit ISA BUS connector
ISA4, ISA5	16-bit ISA BUS connector
VBAT	Ext. battery connector
FAN2, FAN3	Power connector for CPU fan use
CN2	AT power supply connector
CN3	ATX power control connector
IDE1, IDE2	IDE device connectors
FDD	Floppy Disk Device connector
CN8	Front Panel connector
USB connector	Universal Serial Bus connector

External Battery Connector: VBAT

It is a 2 Pin connector used for external battery. An external battery powers the real-time clock and CMOS memory.

VBAT	PIN No.	Function
2 0	1	GND
1	2	Ext_bat

Housing : XHP-2(JST) Contact : SXH-001-P0.6(JST)

CPU FAN Connector: FAN2 / FAN3

FAN2 and FAN3 are 3-pins box-header for the CPU cooling fan power connector. The fan must be a 12V fan. Pin 3 is for Fan speed sensor input.

FAN2/FAN3	PIN No.	Function	Connector type for Cable
l	1	GND	Housing: 5102-03 (molex)
<u> </u>	2	POWER	3 , , ,
1 2 3	3	FAN	Contact: 5103 (molex)

AT Power Supply Connector: CN2

		PIN No.	Function
		1	Power Good
1	R ON	2	+5V
2	1-1-11	3	+12V
	1919 11	4	-12V
5		5	GND
6		6	GND
7	19 9 1 1	7	GND
9	1915 11	8	GND
10	o ĞĞ	9	-5V
11	1919 11	10	+5V
12	د الاا ا	11	+5V
		12	+5V
2 3 4 5 6 7 8 9		3 4 5 6 7 8 9 10	+12V -12V GND GND GND GND -5V +5V

Suitable Connector : GTC6P-1(correspond) Suitable Socket Contact : PCK18-2TR9(correspond)

Maker : BURNDY

Option Cables (one side is solder disposal)

Type : PCA-6P2 Model : Cable length, 36cm(AWG#18), two

ATX Power Supply Connector: CN3

When used with an ATX-compliant power supply that supports remote power on/off, the CPU card can turn off the system power through software control.

To enable soft-off control in software, advanced power management must be enabled in the Setup program and in the operation system. When the system BIOS receives the correct APM command from the operating system, the BIOS turns off power to the computer.

With soft-off enabled, if power to the computer is interrupted by a power outage or a disconnected power cord, when power resumes, the computer returns to the power state it was in before power was interrupted (on or off).

	PIN No.	Function	PIN No.	Function
CN2	11	+3.3V	1	+3.3V
11 🔲 🗆 1	12	-12V	2	+3.3V
	13	GND	3	GND
	14	PON	4	+5V
	15	GND	5	GND
	16	GND	6	+5V
	17	GND	7	GND
20	18	-5V	8	Power Good
	19	+5V	9	PWRSB
	20	+5V	10	+12V

Cable side Connector Maker: Molex Cable side Connector Type : 5557-20R (39-01-2200) Cable side Connector Contact Type: 5556

Primary & Secondary IDE port Connector: IDE1 / IDE2

These connectors support the provided IDE hard disk ribbon cable. After connecting the single end to the board, connect the two plugs at the other end to your hard disk(s). If you install two hard disks, you must configure the second drive to Slave mode by setting its jumper accordingly. Please refer to your hard disk documentation for the jumper setting.

			PIN No.	Function	PIN No.	Function
		1	RESET	2	GND	
ID	E1/ID	F2	3	D7	4	D8
יוו		1	5	D6	6	D9
1	■ ○	2	7	D5	8	D10
	0 0		9	D4	10	D11
	0 0		11	D3	12	D12
	0 0		13	D2	14	D13
	00		15	D1	16	D14
	0 0		17	D0	18	D15
	00		19	GND	20	N.C.
i	0 0		21	DREQ	22	GND
	0 0		23	IOW	24	GND
	0 0		25	IOR	26	GND
	00		27	IORDY	28	ALE
	0 0		29	DACK	30	GND
	0 0	40	31	IRQ	32	IOCS16
39	89 0 0 40		33	A1	34	PDIAG
		_	35	A0	36	A2
			37	CS0	38	CS1
			39	HD ACT	40	GND

Floppy Disk Connector: FDD

This connector supports the provided floppy drive ribbon cable. After connecting the single and to the board, connect the two plugs on the other end to the floppy drives.

			PIN No.	Function	PIN No.	Function
			1	GND	2	RWC
	FDD		3	GND	4	N.C.
		1.	5	GND	6	N.C.
1	□ ○	2	7	GND	8	INDEX
	0 0		9	GND	10	DS0
	0 0		11	GND	12	DS1
	0 0		13	GND	14	DS2
	0 0		15	GND	16	MOT ON
li	000000000000000000000000000000000000000		17	GND	18	DIR
			19	GND	20	STEP
			21	GND	22	WD
			23	GND	24	WG
			25	GND	26	TRCK 0
20	0 0	34	27	GND	28	WP
33	33 [0 0] 3		29	GND	30	RD
			31	GND	32	SIDE 1
			33	GND	34	DSK CHG

Front Panel Connector: CN8

This header can be connected to a front panel power switch.

The front panel connector includes headers for these I/O connections:

Power switch

Power LED

This header can be connected to an LED that will light when the computer is powered on.

KEY LOCK

Key lock allows you to disable the keyboard for security purposes. You can connect the key lock to this pin.

Hard drive activity LED

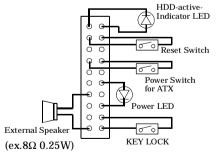
This header can be connected to an LED to provide a visual indicator that data is being read from or written to an IDE hard drive. For the LED to function properly. The IDE drive must be connected to the onboard IDE controller.

Speaker

A speaker can be installed on the PC-686BX(NLX)-LV as a manufacturing option. The speaker is enabled by a jumper on pins 13, 19 of the front panel connector.

			PIN No.	Function	PIN No.	Function
	CN8		1	STROBE	2	HD LED+
١.,	_		3	RST SW	4	GND
1	000	2	5	N.C.	6	N.C.
	0 0		7	PWR ON	8	GND
	0 0		9	N.C.	10	GND
	00		11	N.C.	12	PLED+
	0 0		13	+5V	14	N.C.
	0 0		15	N.C.	16	GND
19	0	20	17	BUZZER	18	KB LOCK
			19	SPEAKER	20	GND

Suitable Connector : PS-20SEND4P1-1C(correspond)
Maker : JAE



USB Connector: USB

The Universal Serial Bus (USB) that allows plug and play computer peripherals such as keyboard, mouse, joystick, scanner, printer, modem/ISDN, CD-ROM and floppy disk drive to be automatically detected when they are attached physically without having to install drivers or reboot.

The USB connectors allow any of several USB devices to be attached to the computer. Typically, the device driver for USB devices is managed by the operating system. However, because keyboard and mouse support may be needed in the Setup program before the operating system boots, the BIOS supports USB keyboards and mice.

The CPU card has two USB ports; one USB peripheral can be connected to each port. For more than two USB devices, an external hub can be connected to either port. The two USB ports are implemented with stacked back panel connectors. The CPU card fully supports the universal host controller interface (UHCI) and uses UHCI-compatible software drivers.

USB features includes:

- Self-identifying peripherals that can be plugged in while the computer is running
- Automatic mapping of function to driver and configuration
- Support for isochronous and asynchronous transfer types over the same set of wires
- Support for up to 127 physical devices
- Guaranteed bandwidth and low latencies appropriate for telephony, audio and other applications
- Error-handling and fault-recovery mechanisms built into the protocol

Notes!

- When using PC-686BX(NLX) Series (CONTEC Products), please use the USB connector on the CPU Board.
- Computer systems that have an unshielded cable attached to a USB port may not meet FCC Class B requirements, even if no device or a low-speed USB device is attached to the cable. Use shielded cable that meets the requirements for fullspeed devices.

USB	PIN No.	Function	PIN No.	Function
	1	Vcc	2	Vcc
1 2	3	USBP0-	4	USBP1-
	5	USBP0+	6	USBP1+
9 - 10	7	USBG	8	USBG
9 3 3 10	9	GND	10	GND

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